

What is Claimed:

1 1. A remote control system for translating an utterance of an operator to a
2 control parameter of an electronic device, comprising:

3 a remote control unit, including,

4 i. an audio input for receiving the utterance; and

5 ii. a transmitter operably linked to the audio input for providing a
6 transmission signal corresponding to the utterance;

7 a relay station responsive to the transmission signal, the relay station
8 including,

9 i. a receiver for recovering audio signals representing the utterance from
10 the transmission signal;

11 ii. a speech recognition module for translating the audio signals into a
12 sequence of words;

13 iii. a memory for translating the sequence of words into the control
14 parameter;

15 whereby the control parameter is provided to the electronic device enabling
16 hands-free remote control of the electronic device.

1 2. The remote control system of claim 1, wherein the remote control unit
2 is an operator headset having a microphone coupled to the audio input of the remote control
3 unit.

1 3. The remote control system of claim 1, wherein the electronic device is
2 operably linked to the relay station to receive the control parameter.

1 4. The remote control system of claim 1, further comprising:

2 a display device, coupled to the electronic device for displaying a control
3 menu;

4 wherein the utterance is translated by the relay unit into a menu navigation
5 control parameter that causes the electronic device to navigate the displayed control menu.

1 5. The remote control system of claim 4, wherein the navigation of the
2 menu is displayed on the display device in response to the electronic device receiving the
3 menu navigation control parameter.

1 6. The remote control system of claim 4, wherein the received navigation
2 control parameter is displayed on the display device.

1 7. The remote control system of claim 1, wherein the relay station further
2 comprises:

3 a transmitter for providing the control parameter to a remote control input port
4 of the electronic device.

1 8. The remote control system of claim 7, wherein the remote control unit
2 further comprises:

3 a receiver for receiving transmissions from the relay station.

1 9. The remote control system of claim 8, wherein the receiver of the
2 remote control unit is configured to receive menu data from the transmitter of the relay unit
3 and the transmitter of the remote control unit is configured to provide transmission signals
4 representing utterances for selecting a menu option.

1 10. The remote control system of claim 8, wherein the relay unit further
2 comprises a communications transceiver configured to allow a user to contact a remotely
3 located party, wherein the receiver and transmitter of the remote control unit are configured
4 to receive signals from the communications transceiver and to provide signals to the

5 communications transceiver to utilize the communication transceiver of the relay unit to
6 communicate with the remotely located party.

1 11. The remote control system of claim 10, wherein the remote control unit
2 and the relay unit are configured to provide voice communication between the remotely
3 located party and the operator.

1 12. The remote control system of claim 11, wherein the relay unit is
2 operably linked to a telecommunication line and signals corresponding to the voice
3 communication are transferred between the relay unit and the remotely located party over the
4 telecommunication line.

1 13. A remote control system for translating utterances of an operator to
2 control parameters for a plurality of electronic devices, comprising:

3 a remote control unit, including,

4 i. an audio input which receives utterances; and

5 ii. a transmitter operably linked to the audio input to provide transmission
6 signals corresponding to the utterances;

7 a relay station responsive to the transmission signals, the relay station
8 including,

9 i. a receiver which recovers audio signals representing the utterances
10 from the transmission signals;

11 ii. a speech recognition module which translates the audio signals into
12 words

13 iii. a memory including a plurality of look-up tables each of which
14 translates the translated words into the control parameters for a
15 respective one of the plurality of devices; and

- 16 iv. a processor which selects one of the look-up tables to be used to
17 generate the control parameters responsive to the translated words;
- 18 v. a transmitter which provides the control parameters from the selected
19 look-up table to the respective electronic device;
- 20 whereby hands-free remote control of the plurality of electronic devices is
21 enabled.

1 14. A remote control system according to claim 13, wherein:

2 the memory further comprises a further plurality of look-up tables, each
3 corresponding to a respectively different device type; and

4 the processor is configured to receive a command to associate one of the
5 further plurality of look-up tables with the plurality of look-up tables to allow use of the one
6 of the further plurality of look-up tables in controlling the corresponding device.

1 15. A remote control system according to claim 14, wherein the processor
2 is operatively coupled to the corresponding device to receive the command to associate the
3 one of the further plurality of look-up tables with the plurality of look-up tables from the
4 corresponding device.

1 16. A remote control system for translating an utterance of an operator to a
2 control parameter of an electronic device, comprising:

3 a remote control unit, including,

4 i. a microphone for receiving the utterance;

5 ii. an audio transducer for providing audio information to the operator;

6 iii. a transmitter operably linked to the microphone for providing a
7 transmission signal corresponding to the utterance;

8 iv. a receiver responsive to feedback signals and operably linked to the
9 audio transducer for providing audio prompts to the operator

10 a relay station responsive to the transmission signal, the relay station
11 including,

12 i. a receiver for recovering the utterance from the transmission signal and
13 for receiving feedback signals from the electronic device,

14 ii. a speech recognition module for translating the utterance of the
15 operator into the control parameter;

16 iii. means for transmitting the control parameter to the electronic device,
17 and for transmitting the feedback signal to the receiver of the remote
18 control unit; and

19 whereby the control parameter is provided to an electronic device and the
20 electronic device provides the feedback signals for prompting an operator of the remote
21 control unit to select one of a plurality of menu options, enabling hands-free remote control
22 of the electronic device.

1 17. A method of translating an utterance of an operator to a control
2 parameter of an electronic device, comprising:

3 converting an utterance into a modulated transmission signal;

4 receiving the transmission signal at a relay unit;

5 recovering audio signals representing the utterance from the modulated
6 transmission signal;

7 processing the audio signals to recognize the words included in the utterance;

8 and

9 translating the recognized words into the control parameter,
10 providing the control parameter to the electronic device enabling hands-free
11 remote control of the electronic device.

1 18. A method of translating an utterance of an operator to a control
2 parameter and receiving a feedback signal from the electronic device in response to the
3 control parameter for prompting the operator of the remote control system to select from a
4 plurality of available control parameters, comprising:

5 converting an utterance into a modulated transmission signal;

6 receiving the transmission signal at a relay unit;

7 recovering audio signals representing the utterance from the modulated
8 transmission signal;

9 processing the audio signals to recognize words included in the utterance;

10 translating the recognized words into a control parameter for the electronic
11 device;

12 transmitting the control parameter from the relay unit to the electronic device;

13 receiving a feedback signal from the electronic device at the relay unit;

14 designating an utterance menu command corresponding to the feedback signal;

15 transmitting a signal representing the utterance menu from the relay unit to the
16 remote control unit; and

17 providing the signal representing the utterance menu as an audio output signal
18 of the remote control unit,

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
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